# Intisari

Pencemaran plastik merupakan salah satu ancaman di ekosistem perairan. Penelitian mengenai hal tersebut belum banyak dilakukan dan pada umumnya dilakukan di ekosistem laut. Penelitian kandungan mikroplastik pada ikan air tawar sangat jarang dilakukan meskipun konsumsi ikan air tawar memiliki proporsi yang tinggi. Penelitian ini bertujuan untuk mengetahui kandungan mikroplastik berdasarkan jenis bentuk, warna dan ukuran pada saluran pencernaan ikan. Sampel ikan terdiri dari ikan Nilem *(Osteochilus hasselti*), ikan mujair *(Orechromis mossambicus*), dan ikan gabus (*Channa striata*) yang mewakili ikan herbivora, omnivora dan karnivora diambil dari Danau Rawa Pening total sebanyak 30 ekor. Tiap sampel ikan dibedah bagian perut kemudian diambil ususnya, selanjutnya usus diekstraksi menggunakan larutan KOH 10%. Hasil ekstraksi diamati di bawah mikroskop untuk melihat keberadaan mikroplastik. Mikroplastik yang ditemukan diidentifikasi jenis bentuk, warna dan diukur panjangnya. Ketiga jenis ikan yang diamati ditemukan mikroplastik, berbentuk *fiber* sebanyak 97,9% dan sisanya berupa fragmen sebanyak 2,1%. Warna yang dominan adalah hitam sebanyak 40,2%, biru sebanyak 18,2 %, kuning sebanyak 17,1 %, hijau 7,3 %, merah 7,0 % dan warna lain kurang dari 2,5 %. Ikan mujair memiliki kandungan mikroplastik paling banyak yaitu 12 ± 5,75 partikel/ekor, kemudian ikan nilem sebanyak 9,6 ± 5,39 sedangkan ikan gabus paling sedikit yaitu 7 ± 4,16 partikel/ekor.

Kata kunci: Air tawar, ikan, danau, mikroplastik

## Abstract

Plastic pollution is one of the threats in aquatic ecosystems. Research on that subject was generally carried out in marine ecosystems. Freshwater fish consumption in the tropics has a high proportion, but microplastic content studies in freshwater fish are very rarely conducted. This study aims to determine the microplastic content found in the digestive tract of fish based on the type of shape, color, and size. Samples were collected from Lake Pening as many as 30 individu consisting of bonylip barb (*Osteochilus hasselti*), tilapia (*Orechromis mossambicus*), and snakehead (*Channa striata*), each representing herbivorous, omnivorous and carnivorous fish. Each sample of the fish was dissected to the stomach and then the intestine was taken out, then the intestine was extracted using a 10% KOH solution. The result of extraction was observed under a microscope to examine the presence of microplastics. The microplastic that was found was identified by the type of shape, color, and measured its length. The three types of fish observed were microplastic, 97.9% fiber and the rest were 2.1% fragments. The dominant microplastic colors are black as much as 40.2%, blue as much as 18.2%, yellow as much as 17.1%, green 7.3%, red as 7.0%, and other colors less than 2.5%. Tilapia has the most microplastic content, which was 12 ± 5.75 particles/individual, then bonylip barb as much as 9.6 ± 5.39 particles/individual, while snakehead was at least 7 ± 4.16 particles/individual.

Keywords: Freshwater, fish, lake, plastic waste.